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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,772	08/06/2001	Max Henrion	019518-002010US	9387

7590 02/18/2005

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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT PAPER NUMBER

2165

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/923,772

Applicant(s)

HENRION ET AL.

Examiner

Neveen Abel-Jalil

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-26 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-21 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



**SAM RIMELL**  
**PRIMARY EXAMINER**

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23-November -2004 has been entered.
2. The amendment filed on 23-November -2004 has been received and entered. Claims 1-26 are pending.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-3, 6-9, 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal (U.S. Patent No. 6,370,527 B1) in view of Chai et al. (U.S. Patent No. 6,829,603 B1).

As to claim 1, Singhal discloses a method for assisting a user in selecting one or more items from an item set that best match a set of target preferences, the method comprising:

associating the set of target preferences with one or more attributes (See Singhal column 5, lines 11-67);

determining one or more relative importance values for the one or more attributes based on the obtained information (See Singhal column 2, lines 35-58);

generating at least one list of items selected from the item set that will best meet the set of target preferences based on the one or more relative importance values for one of more attributes (See Singhal column 2, lines 18-42); and

generating a display including the list of items and explanations for at least one item on the list of items explaining how well one or more attributes of the at least one item match the set of target preferences (See Singhal column 3, lines 1-67, also see Singhal column 4, lines 7-31).

Singhal does not teach obtaining information from the user about that user's set of target preferences, using direct questions.

Chai et al. teaches obtaining information from the user about that user's set of target preferences, using direct questions (See Chai et al. column 2, lines 56-67, prior art, also see Chai et al. column 3, lines 57-67, prior art, and see Chai et al. column 15, lines 1-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Singhal to include obtaining information from the user about that user's set of target preferences, using direct questions because it provides efficiency, accuracy in data retrieval methods (See Chai et al. column 3, lines 38-67).

As to claim 2, Singhal as modified discloses wherein the item is a product, service or other selectable element (See Chai et al. column 15, lines 1-57, also see Singhal abstract).

As to claim 3, Singhal as modified discloses wherein the information obtained from questions to the user is supplemented with other information about the user (See Chai et al. column 2, lines 56-67, prior art, also see Chai et al. column 3, lines 57-67, prior art, and see Chai et al. column 15, lines 1-57).

As to claim 6, Singhal as modified discloses further comprising a step of providing the user with explanations of recommendations, where each explanation contains at least one pro or at least one con, and the explanation refers to an attribute of the item and identifies how well the attribute meets the user's set of target preferences (See Singhal column 2, lines 24-58, also see Chai et al. column 12, lines 1-27).

As to claims 7, and 14, Singhal as modified discloses wherein one or more pro or con includes a reference to the set of target preferences (See Chai et al. column 11, lines 1-22).

As to claim 8, Singhal as modified discloses further comprising generating a statement relating one or more pro or con to a matching of an attribute and a recommendation for or against an item based on indirect inferences from user inputs (See Singhal column 3, lines 46-67, also see Chai et al. column 15, lines 41-46).

As to claim 9, Singhal as modified discloses wherein each explanation includes those pros and cons that have high estimated decision relevance to the user, and excludes at least one mention of a low estimated relevance attribute (See Singhal column 6, lines 38-52).

As to claim 11, Singhal as modified discloses further comprising generating for display to the user a list of common attributes for which all of the items on the list of items have common values (See Chai et al. column 11, lines 57-67, also see Chai et al. column 12, lines 1-27).

As to claim 12, Singhal as modified discloses wherein the list of common attributes includes attributes that have values in a common range (See Chai et al. column 12, lines 1-27, also see Singhal column 6, lines 48-65).

As to claim 13, Singhal as modified discloses wherein the list of common attributes includes pros and cons for attributes that have high estimated importance to the user and excludes at least one pro or con for at least one attribute that has a low estimated importance to the user (See Singhal column 6, lines 38-52).

As to claim 15, Singhal as modified discloses further comprising generating a statement relating one or more pro or con to a matching of an attribute and a recommendation for or against an item based on indirect inferences from user inputs (See Chai et al. column 14, lines 1-22, also see Singhal column 6, lines 47-65).

As to claim 16, Singhal as modified discloses further comprising offering questions to the user in a sequence that is determined dynamically based on answers to previous questions (See Chai et al. column 4, lines 6-23, prior art, also see Chai et al. column 3, lines 1-34).

As to claim 17, Singhal discloses wherein sequence of questions, is based on a priority calculated as an increasing function of the uncertainty about the importance of the attributes to which the question pertains and the variation in attribute relative importance values among the items (See Singhal column 2, lines 24-58, also see Chai et al. column 12, lines 1-27).

As to claim 18, Singhal as modified discloses wherein the variation of attribute relative importance value among the items is weighted to the values of the items with the high current ranking so that the question priority reflects the expectation that answers to the question are likely to change the ranking of the top ranked items (See Singhal column 5, lines 44-67).

As to claim 19, Singhal as modified discloses wherein the system mentions for each unmet requirements and selected combinations of requirements the number of items it or they eliminate as unacceptable (See Singhal column 6, lines 38-52).

As to claim 20, Singhal as modified discloses wherein if no item meets all requirements specified by the user, the system displays a conflict page that mentions the fact that no items meet all requirements and lists the requirements that cannot be simultaneously met (See Singhal column 5, lines 44-60, also see Chai et al. column 14, lines 14-22).

As to claim 21, Singhal as modified discloses wherein if no item meets all requirements specified by the user, the system determines a best match based on the one or more relative importance values for the one or more attributes (See Singhal column 5, lines 1-35).

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal (U.S. Patent No. 6,370,527 B1) in view of Chai et al. (U.S. Patent No. 6,829,603 B1) as applied to claims 1-3 above, and further in view of Busey et al. (U.S. Patent No. 6,377,944).

As to claim 4, Singhal as modified discloses wherein the other information includes one or more of information provided by the user during online interactions (See Singhal abstract).

Singhal as modified still does not disclose information provided by the user during offline interactions.

Busey et al. discloses information provided by the user during offline interactions (See Busey et al. column 10, lines 23-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Singhal as modified to include information provided by the user during offline interactions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Singhal as modified by the teaching of Busey et al. to include information provided by the user during offline interactions because it provides for accurate data



collection and tracking of customer's profile and preference leading to efficient database operation and storage.

As to claim 5, Singhal as modified discloses wherein the information provided by the user is one or more of registration information, information about prior selections, information about prior purchases and information about prior interactions with automated decision advisors (See Chai et al. column 12, lines 1-27, also see Singhal column 7, lines 21-30).

***Allowable Subject Matter***

5. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for allowance:

The prior art of record (Fratkina et al. -U.S. Pub. 2001/0049688 - and Marchisio -U.S. Patent No. 6,510,406 – and Busey et al. -U.S. Patent No. 6,377,944-and Singhal -U.S. Patent No. 6,370,527 B1- and Chai et al. -U.S. Patent No. 6,829,603 B1) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim), a step of estimating decision relevance of an attribute to the user as an increasing function of estimated importance of the attribute to the user and an absolute relative preference value, wherein the absolute relative preference value of a given item is a measure of a difference between an

attribute value for the given item and an average value of the attribute for items in the list of items other than the given item, as found in claim 10.

***Reasons for Allowance***

7. Claims 22-26 are allowed over the prior art made of record.

8. The following is a statement of reasons for allowance:

The prior art of record (Fratkina et al. -U.S. Pub. 2001/0049688 - and Marchisio -U.S. Patent No. 6,510,406 – and Busey et al. -U.S. Patent No. 6,377,944-and Singhal -U.S. Patent No. 6,370,527 B1- and Chai et al. -U.S. Patent No. 6,829,603 B1) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim), outputting one or more questions about a user's preferences; receiving answers for the one or more questions related to the user's preferences; for each answer to a question in the one or more questions, performing the steps of:

determining one or more attributes that are associated with the question; and updating or specifying a relative importance value for the one or more based on the answer to the question, wherein a relative importance value is updated for an attribute when the attribute was associated with a prior question and specified when the attribute was not associated with a prior question; generating at least one list of items selected from the item set based on the relative importance values for the one or more attributes determined for the answers for the one or more questions; and outputting the at least one list of items, as found in independent claim 22.

Claims 23-26 are allowed over the prior art made of record, because it is dependent from the allowed independent claim 22.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil  
February 13, 2005

  
**SAM RIMELL**  
**PRIMARY EXAMINER**